

The Deltagram

TRADE MARK REG. U. S. PAT. OFF.

VOLUME SIXTEEN

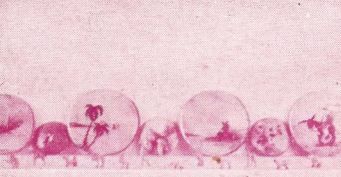
Issue No. 6, 1946, '47

FIFTEEN CENTS

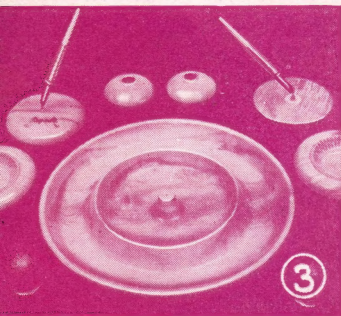
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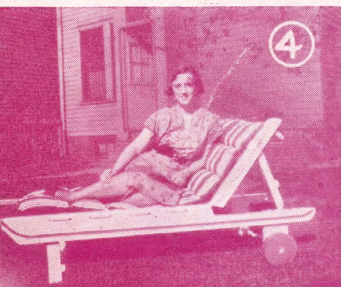
- ★ OUTDOOR BENCH
- ★ BABY BED
- ★ GATE DESIGNS
- ★ END TABLE
- ★ TABLE CENTERPIECE
- ★ LAMP ★ DESIGNS ★ ETC.



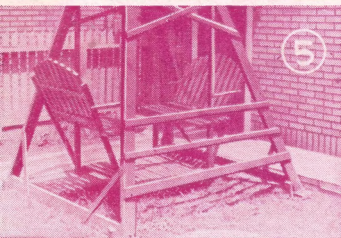
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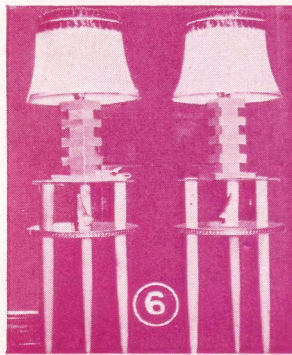
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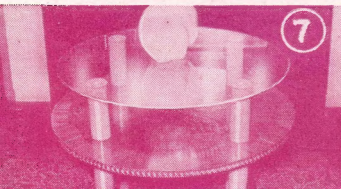
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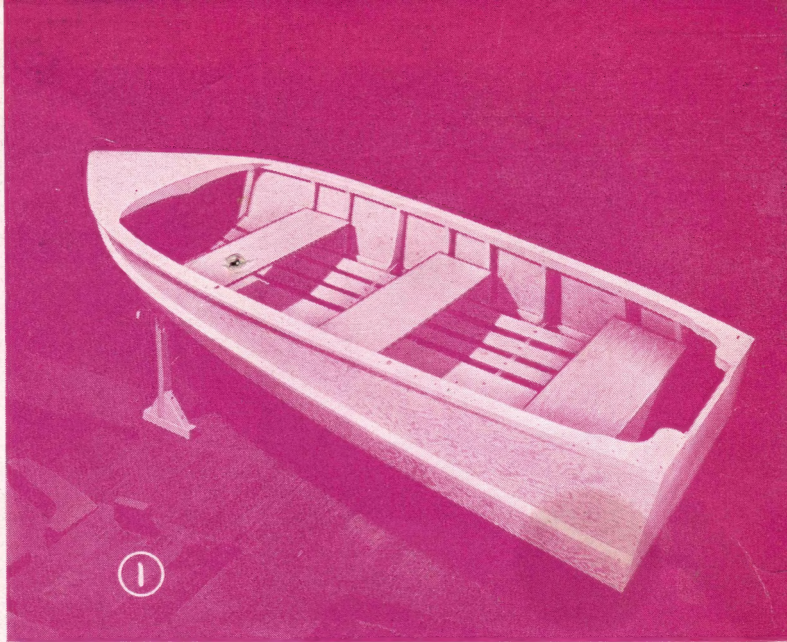
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With Delta Crafters

☆ Photo No. 1 shows a boat made from our Utility Boat Plans No. 4633. Mr. Kelnhofer of Milwaukee, Wisconsin has added a top rail around the entire top edge which does improve the appearance of the boat quite a lot.

☆ Photos No. 2 and No. 3 are turned trays made of Myrtlewood, a native wood of Mountain View, California, where Mr. Shoemaker has his workshop.

☆ The Rollaway Lounge in Photo No. 4 is the work of Mr. Ketcham of Paterson, New Jersey. Drawings on this project appear in July-August, 1944, issue of the Deltagram.

☆ Edward Oliver of Chicago, Ill., sent in Photos No. 5, 6 and 7 of the Swing, Lamp Tables, and Glass Top Coffee Table. These are just a few of the articles he recently made.

The Deltagram

TRADE MARK REG. U. S. PAT. OFF.

★ A MAGAZINE FOR CRAFTSMEN

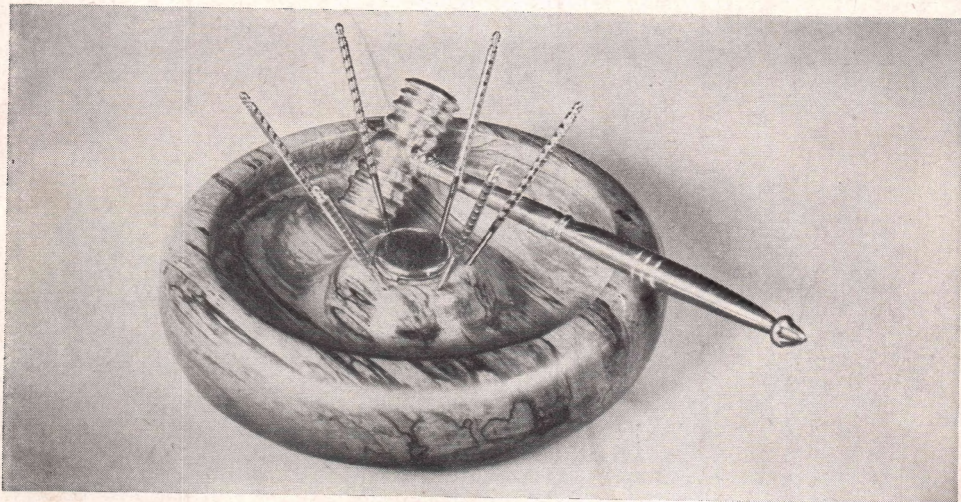
★ PUBLISHED BY THE DELTA MANUFACTURING COMPANY, MILWAUKEE, WISC. SOLD ONLY BY SUBSCRIPTION - 50¢ THE YEAR.

★ E. G. HAMILTON - MANAGING EDITOR
A. M. WARKASKE - TECH. EDITOR

VOLUME SIXTEEN

Issue No. 6, 1946, '47

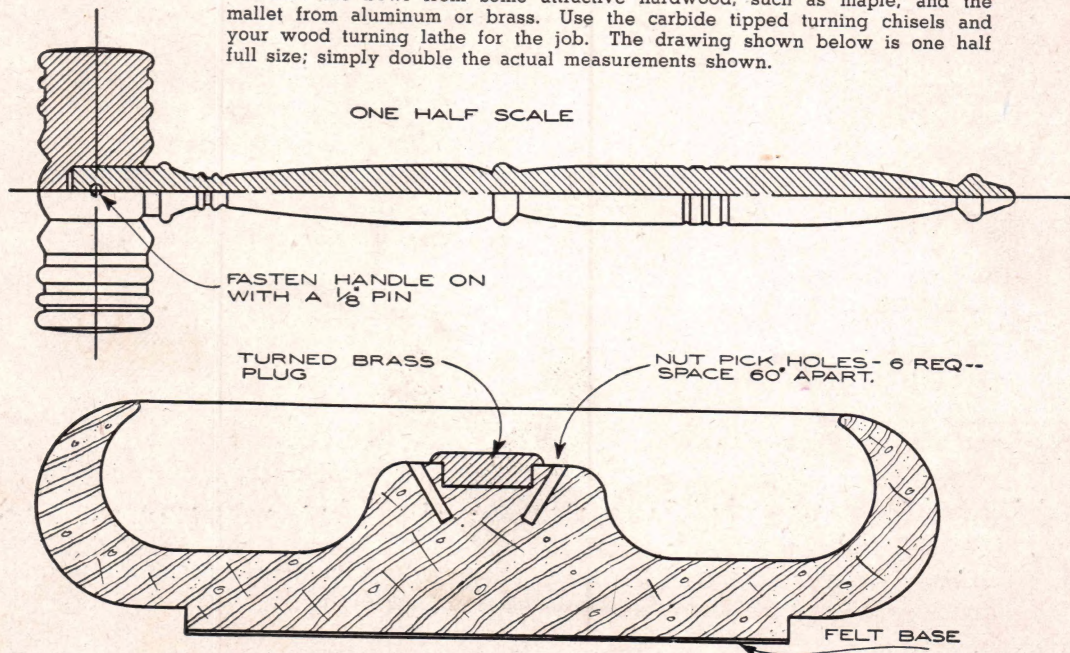
FIFTEEN CENTS



TURNUED NUT BOWL AND MALLEU

☆ TURN the bowl from some attractive hardwood, such as maple, and the mallet from aluminum or brass. Use the carbide tipped turning chisels and your wood turning lathe for the job. The drawing shown below is one half full size; simply double the actual measurements shown.

ONE HALF SCALE



A Baby Bed *for the* Nursery

☆ We have had many requests for the baby bed shown here. Some time ago, a sketch was shown in the Deltagram as a suggested design. It achieved such popularity that the complete plans shown here are the result.

The bed should be built from hardwood such as birch or maple. If the bed is to be painted, softer

woods such as gum, fir or pine may be used in its construction.

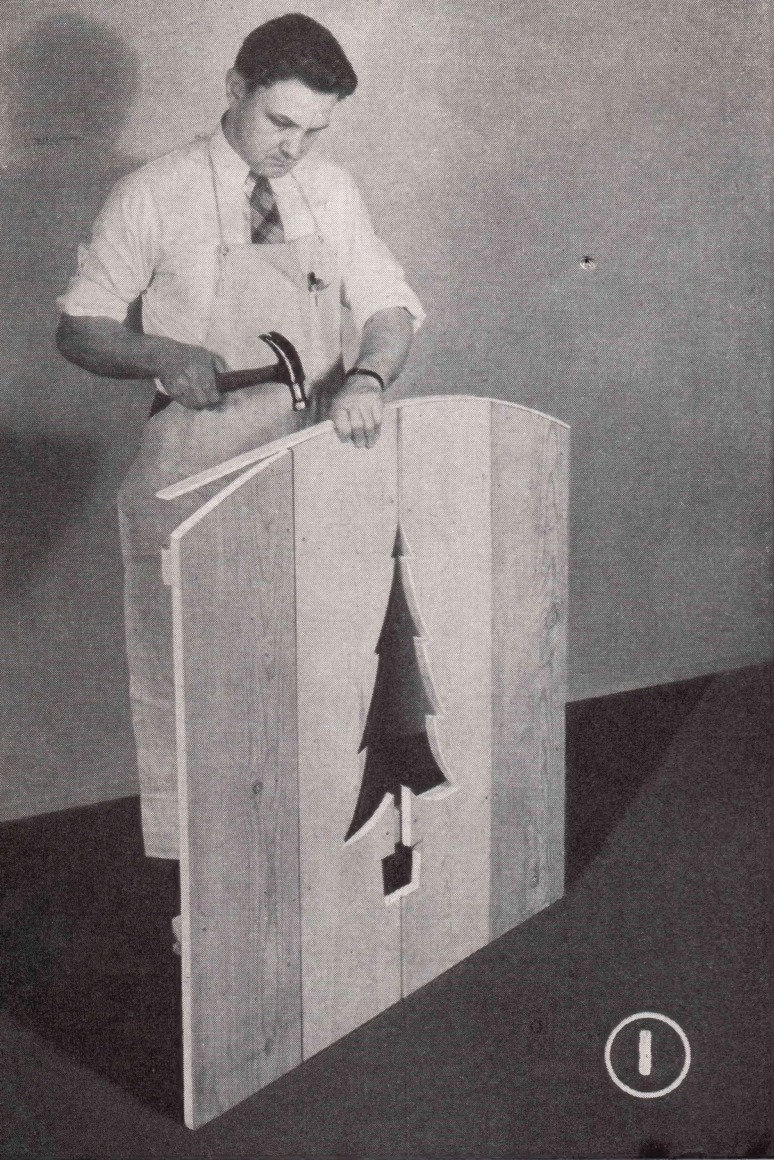
The rounded corners are cut as shown in the detailed drawing on the following page. Two pieces of stock 2" x 4" are fastened together with wood screws through the ends as shown in the drawing. This is chucked in the lathe and turned round. Turn the step and smaller diameter section which forms the base on one end. Remove from the lathe and take the two pieces apart. Next, set up the circular saw with an auxiliary fence clamped at an angle of 22 degrees from the blade and pass the pieces over the blade to make the cove cuts on the under side. Make these cuts in several passes—raising the blade a little each time. When the inside cuts are made, cut them apart as shown to make the four corners of the bed.

The frames for holding the spring slats and drawers are assembled with mortise and tenon joints at the corners. A dividing frame assembled with dowels and glue separates the drawers.

The side slats may be made permanent or they may be grooved to slide out the top for convenient removal.

The end panels may be $\frac{3}{4}$ " plywood panel with suitable face veneer on both sides.

The finish of the original is cream enamel. A sealer coat of shellac was followed by an undercoat of flat white paint. Cream enamel was then sprayed on and when dry, the bed was decorated with nursery decals.



Gate Designs

*Dress Up That
Garden Fence
With An Attractive
Gate*

☆ GARDEN gates are among the simplest projects to build and will do wonders in adding to the attractiveness of your yard or garden. A design should be selected with an eye for the surrounding landscape. The design should go with the garden fence and serve as a decorative frame for the house. We have published gate and fence designs before and present here, a few more to select from.

Lumber to be used outside in construction of this kind must be well seasoned and treated with several coats of boiled oil to prevent rot and insure long life. This is more important than the kind of lumber used.

Wide boards of 8 $\frac{3}{4}$ "

x $\frac{3}{4}$ " pine were used in building the gate shown in the photograph. Many different cut-out designs may be substituted for the pine tree shown. Your initials, for example, may make a nice cut-out monogram which will make your own garden gate individual.

The gates should be assembled with waterproof glue and wood screws.

Wherever possible a diagonal brace should be attached between the back frame piece so that the gate will not have a tendency to sag.

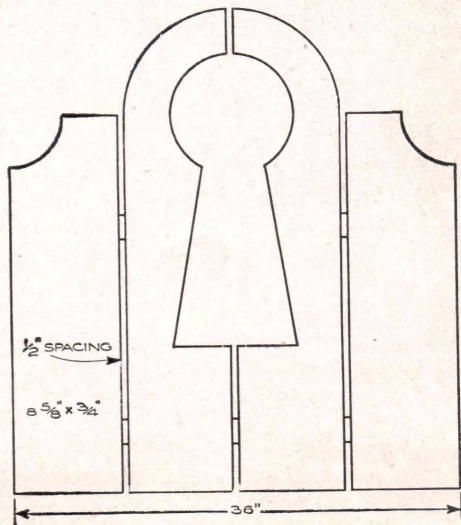
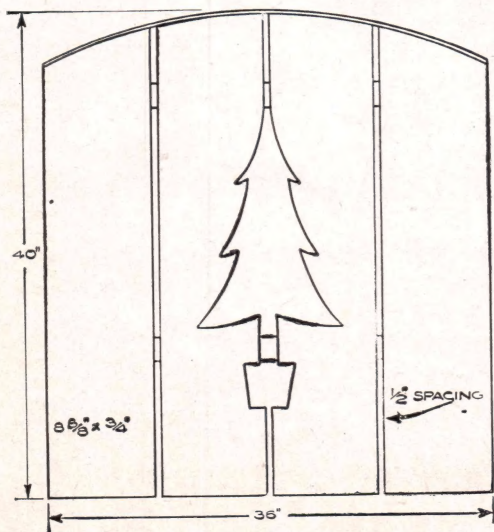
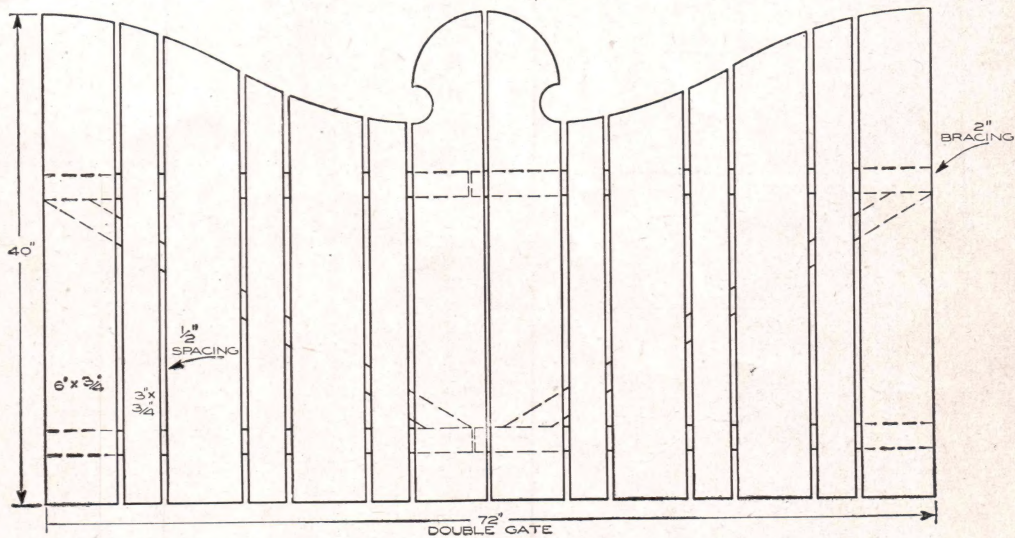
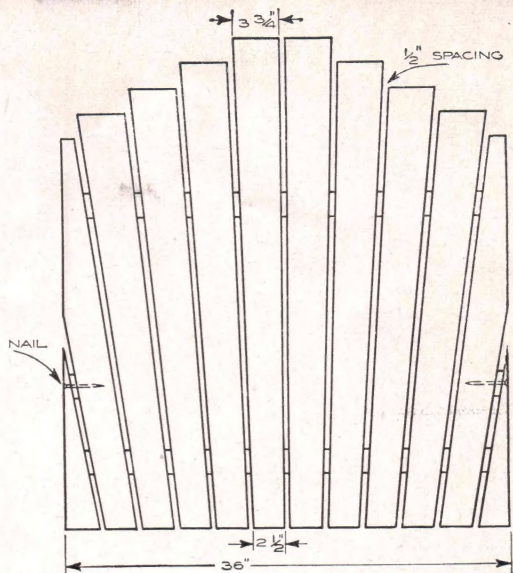
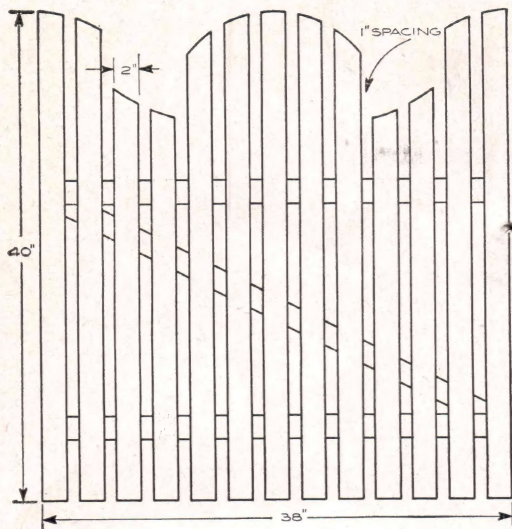
The gate design shown in the center of the following page is shown as a double affair. This is suitable for a driveway—or it may, of course, be used as a single gate by using only one half. In the case of a single gate, the gate post on either side should carry out the gate design.

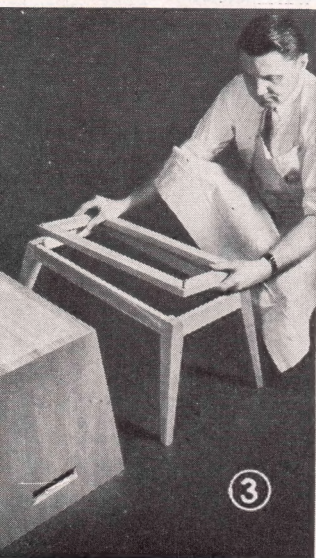
The circular saw, jointer, and band saw are the only power tools required in building gates of this type.

Garden gates of this type may be finished in several ways. They may be treated with oil as described earlier and allowed to weather and darken naturally. They may be stained to match wood shingles on your house, or they may be painted in colors corresponding to your house.

For additional designs in gates and fences see our project book "Garden Furniture and Novelties."







END TABLE

☆ THIS modern design has pleasing lines and is easy and simple to build. The table itself consists of a base, a center frame, and the top compartment. It is built entirely from select birch and finished natural. The top compartment was built from $\frac{3}{4}$ " panel and the edges were veneered with $\frac{1}{20}$ " matching veneer.

The legs are cut and tapered, and fitted to the base frames with dowels and glue (see drawing on following page for details).

The center frame is made from $1\frac{3}{4}$ " x $\frac{3}{4}$ " solid birch. The corners are mitered and glued together with a blind front spline used to strengthen the corners.

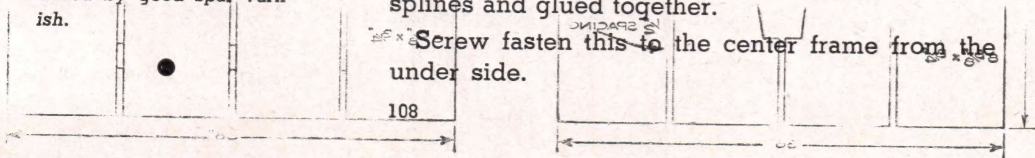
This frame is screwed to the base and legs.

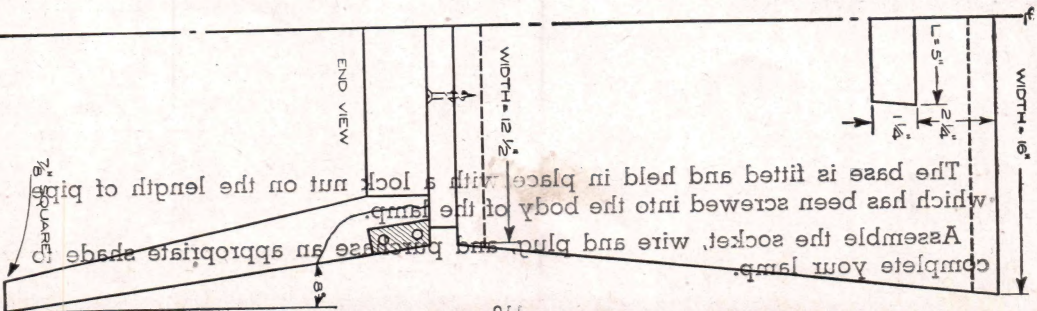
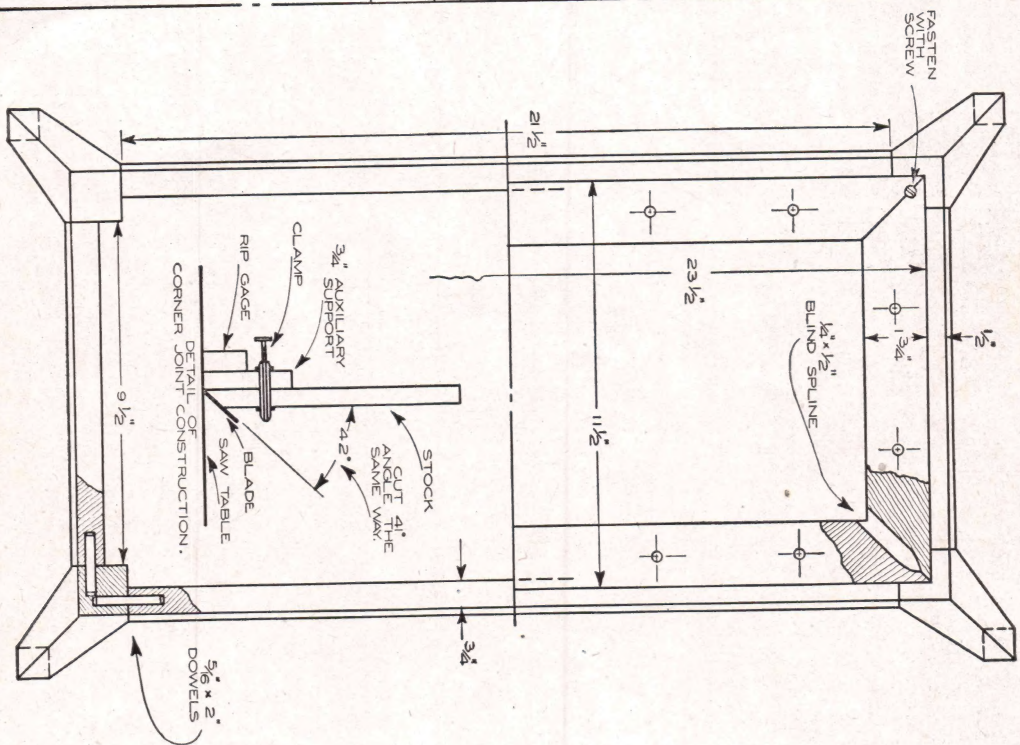
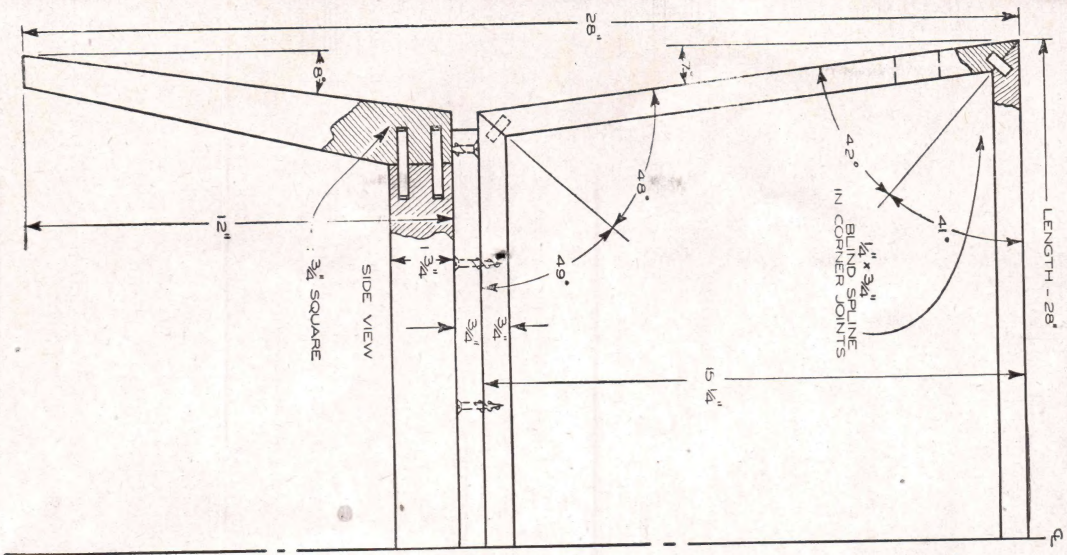
The top compartment consists of four pieces cut to shape and mitered at the corners. These mitered corners are also strengthened with blind front splines and glued together.

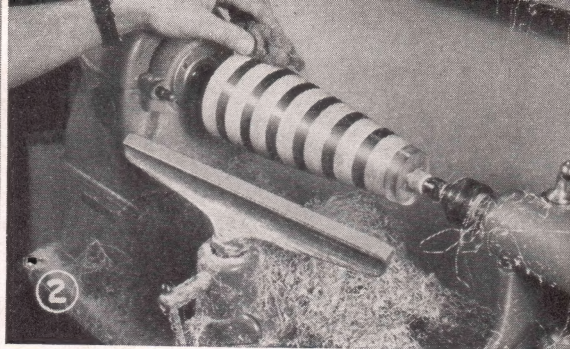
Screw fasten this to the center frame from the under side.

Finish natural using two coats of white shellac followed by good spar varnish.

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Here is a lamp that is different. It has the modern plastic touch and the charm of rich wood.

The stock for turning is built up from $\frac{3}{4}$ " discs of wood and $\frac{1}{2}$ " discs of clear plastic. The plastic should be Plexiglas or Lucite which is readily available to home crafters.

BUILD THIS TABLE LAMP *from WOOD and PLASTIC*

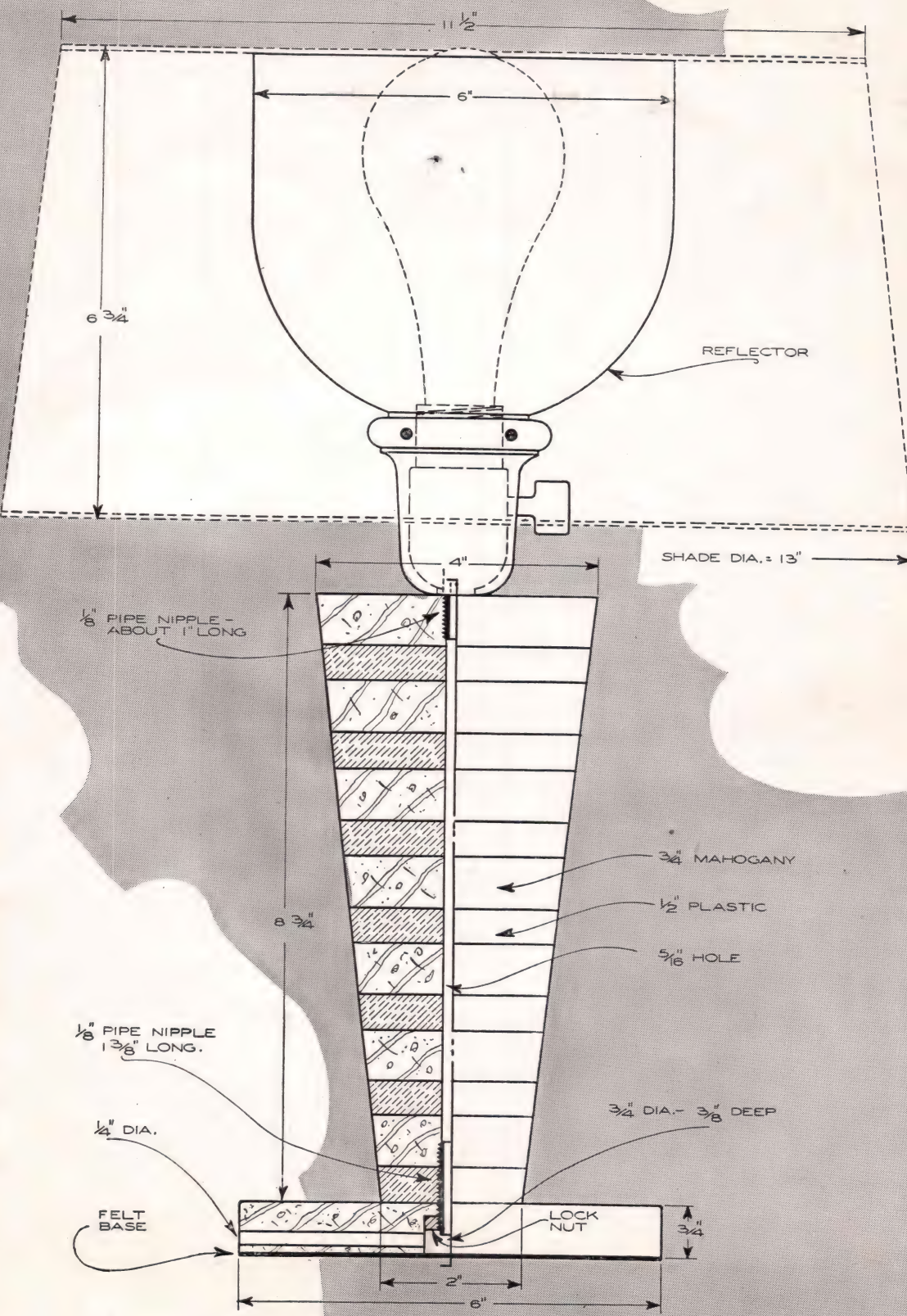
☆ No ordinary bond is used in assembling the body of this lamp. Regular plastic cement is used; the type sold by the plastic distributors and used to cement one piece of plastic to another.

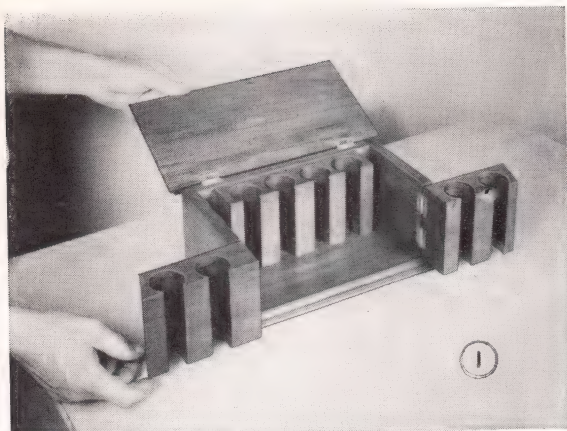
Bandsaw the discs to rough circular size and drill a $\frac{5}{16}$ " hole through the center of each. Lay the parts out on the work bench and coat both surfaces of the plastic discs with plastic cement. The cement may be brushed on with a soft brush. What the cement actually does is to soften the surface of the plastic a fraction of an inch in depth. The wood and plastic discs are now assembled on a wood dowel so that the holes in the center of each will be lined up. The softened surface of the plastic actually is squeezed into the pores of the wood as it is clamped together. Allow this to stand in clamps, preferably for several hours, until it is thoroughly dry.

Remove from clamps and chuck in the lathe for turning. Turn down to a straight taper according to the plan on the next page. The carbide tipped turning chisels will work nicely on this, as the plastic will not dull them. Sand with fine sand paper and polish with steel wool while it is still in the lathe. The edges of the wood may be shellacked and then re-polished, or the wood and plastic may both be finished with paste wax and rubbed well.

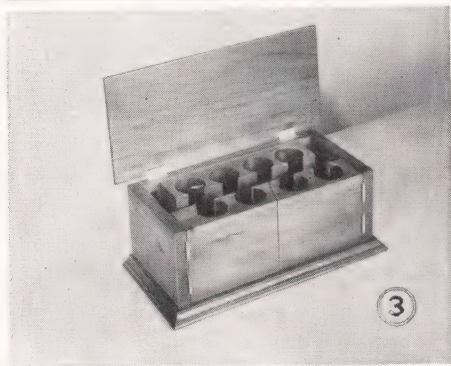
The base is fitted and held in place with a lock nut on the length of pipe which has been screwed into the body of the lamp.

Assemble the socket, wire and plug, and purchase an appropriate shade to complete your lamp.





The block in the rear is glued to the back and base of the chest. The two pieces in front are hinged to the ends so that they swing out as shown in photograph No. 1.



Seal with two coats of white shellac and rub down with steel wool. Finish varnish.

Your initials in small gold decal letters will look well on the lid of the chest.

Poker Chip Rack

**Made From Walnut
Or Mahogany**

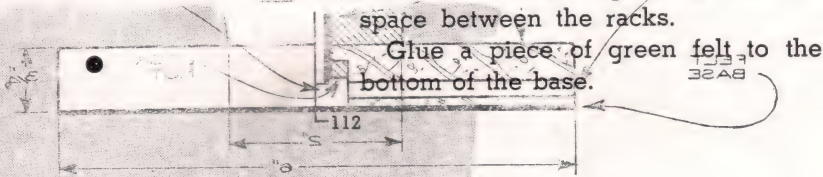
☆ Here is an easy-to-build chest for your poker chips and playing cards.

The top and bottom are identical. Cut two pieces of $\frac{5}{8}$ " stock $12\frac{1}{8}$ " x $5\frac{7}{8}$ " and run a moulding around three sides as shown in the drawing. Use the Delta shaper No. D-136. Since this is an overall cut, it must be set up to run against the shaper fence.

Next, cut and assemble the back and two end pieces to the base. Cut and drill the blocks which hold the chips next. The large holes are drilled from the top with a multi-spur bit. Drill the smaller hole from the bottom and then band saw out the edge to meet this smaller hole, as shown in the drawing.

Use small butt hinges and sink them flush on the inside surfaces. Space is provided for two or more decks of cards by using the space at either end of the back chip block, and the space between the racks.

Glue a piece of green felt to the bottom of the base.



The

MOULDING DET
LID AND BASE

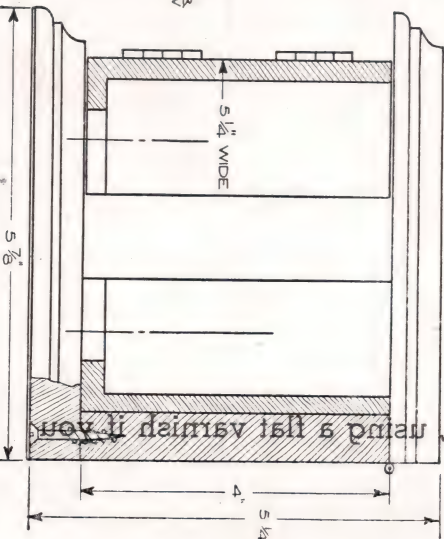
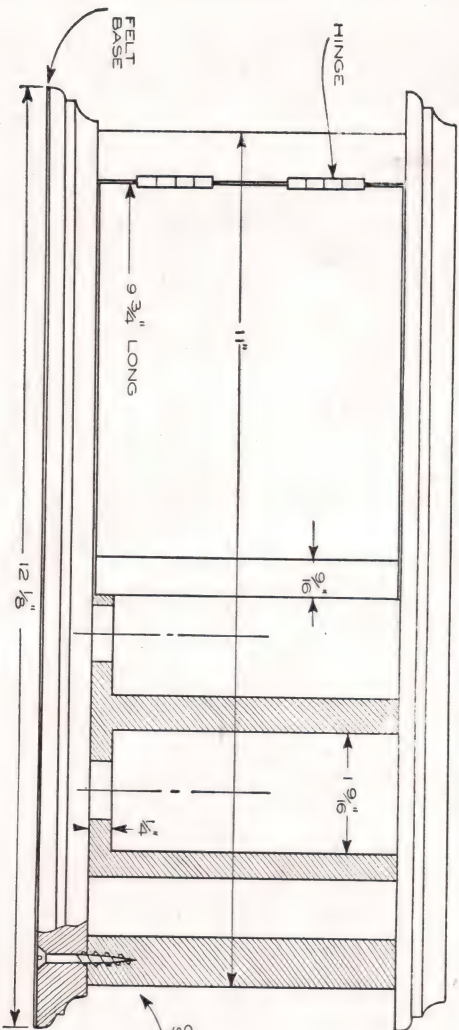
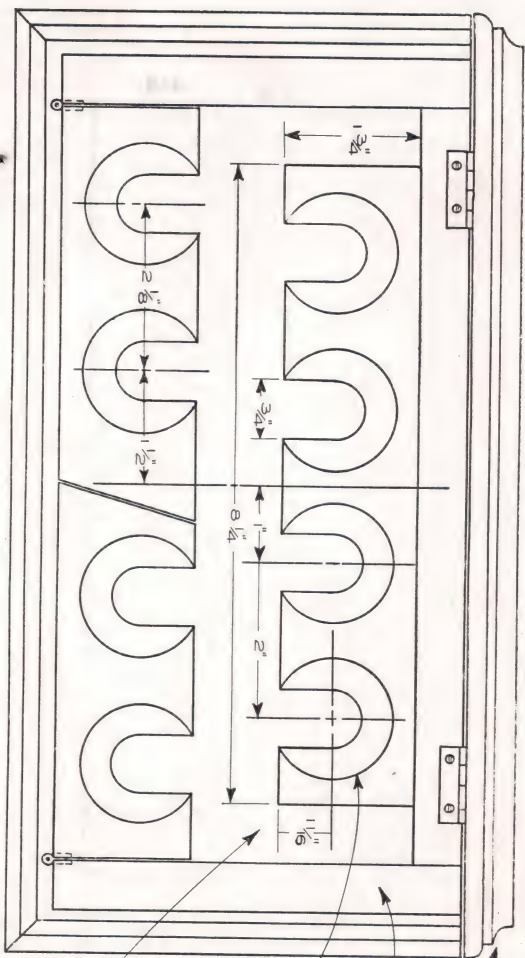
D-136
SHARPER
CUTTERS

TOP IS IN RAISED POSITION

5/8" MATERIAL THROUGHOUT

1 9/16" DIA.

SPACE FOR A
DECK OF CARDS



411



AN OUTDOOR PICNIC BENCH

Always a useful project, this picnic bench has the added advantage of being built to take apart for winter storage in the basement or garage.

☆ THE CIRCULAR saw with your mitre gage is the basic tool required. The jointer will come in handy for dressing the edges of the stock, and either a drill press or hole shooter for drilling the bolt holes.

Cut and fit together the cross members or horses first. Lay out the finished pieces and mark the holes for drilling. Assemble with carriage bolts as shown in the drawing. Place a flat washer under the nut on each bolt so that it does not cut into the wood.

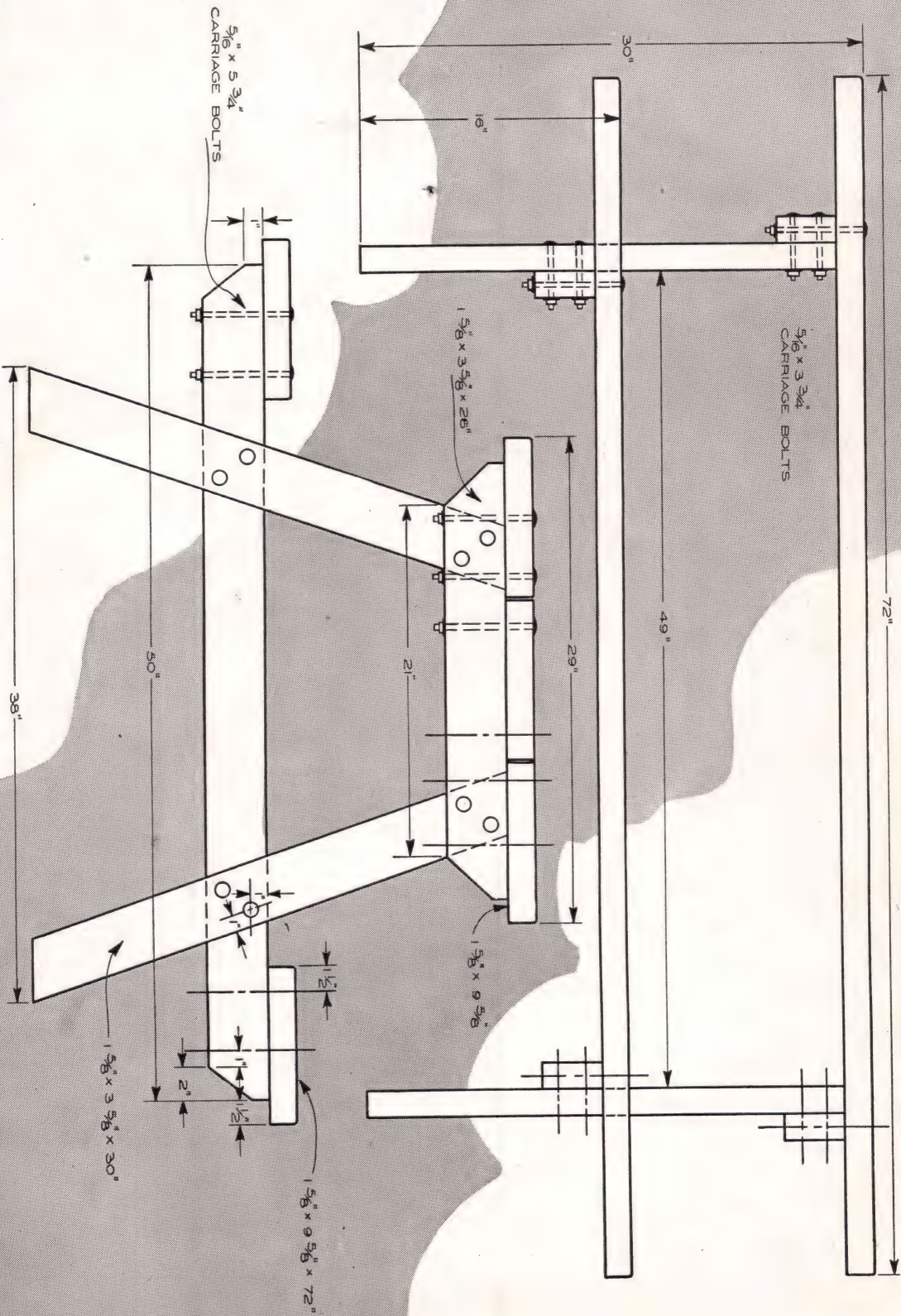
Cut the boards for the top and mark them for drilling. Cut the seat boards, mark and drill bolt holes.

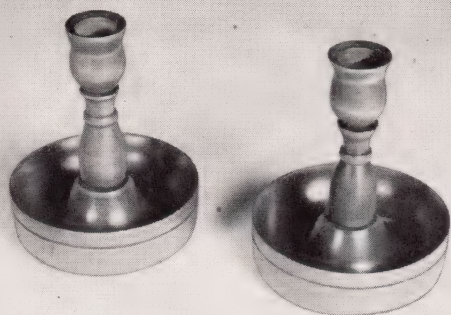
Assemble with carriage bolts, nuts, and washers.

Break all the sharp corners of the bench with a plane.

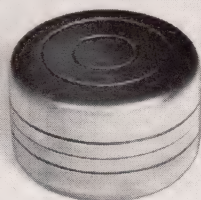
Benches of this type are usually left natural. Since this is an outside piece of furniture it should be preserved with several coats of boiled oil, brushed well into the wood. Allow 24 to 48 hours between coats.

The bench may then be varnished, using a flat varnish if you desire.

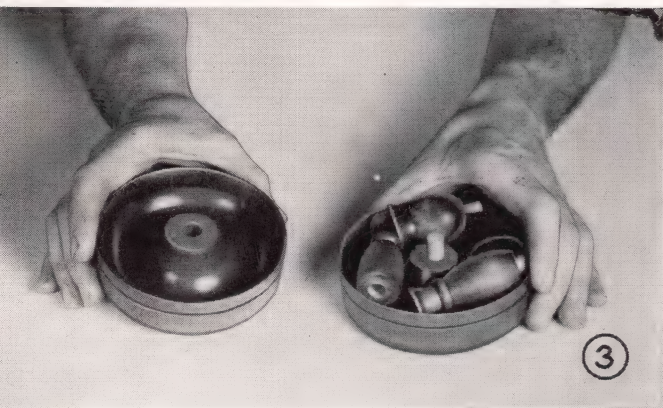




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The unique part of this project is the way in which these candle sticks may be dis-assembled and closed up to look like an ordinary turned box as shown in photograph No. 1.

Photograph No. 3 shows the way in which the stems and candle cups are taken apart and placed in the hollowed out base of one candle stick. The other base then forms a cover which completely encloses the other parts.

NOVELTY CANDLE STICKS

TURNED ON YOUR LATHE

☆ The drawing on the following page is full size. The bases are face plate turnings. Turn two and drill for the dowel in the center while the turning is still in the lathe by chucking a drill in the tail stock of the lathe. This insures that the dowel hole is concentric with the turning itself.

The dowel shown in the drawing is glued into one base only. The exposed end of the dowel thus fits into the hole and vice versa.

Seal all parts with white shellac and wax, or apply a French polish while parts are still in the lathe.

Stock selected for the original pair of candle sticks was maple. Any similar hardwood or turning stock will make up nicely.

$\frac{7}{8}$ " HOLE OR DRILL
TO FIT YOUR
CANDLE

FULL SIZE
TURNING
PATTERNS

MAKE TWO WITH
DOWEL END
ON BOTH

MAKE TWO

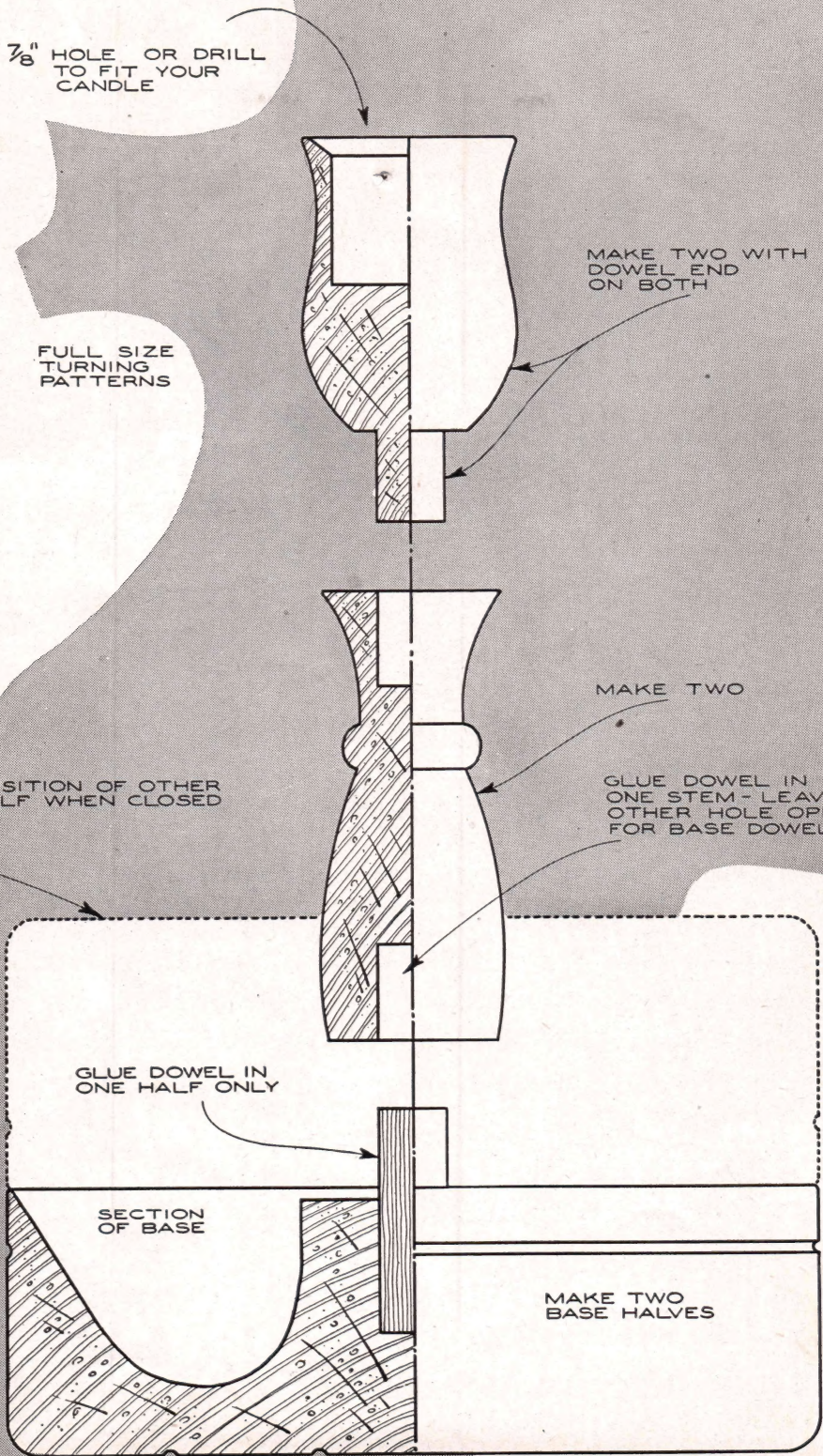
POSITION OF OTHER
HALF WHEN CLOSED

GLUE DOWEL IN
ONE STEM - LEAVE
OTHER HOLE OPEN
FOR BASE DOWELS

GLUE DOWEL IN
ONE HALF ONLY

SECTION
OF BASE

MAKE TWO
BASE HALVES



FLYING CHIPS

Finishing Soft Woods With Water Stain

Relay, Maryland—For several years I have been using water stain in school woodwork shops, following substantially the same method described in "Practical Finishing Methods" published by your company. The following is an outline which I thought may interest other readers of the Deltagram.

1. Sponge wood and allow to dry for one hour.
2. Sand smooth with No. 00 or finer flint paper or garnet.
3. Brush on stain (since the stain has been mixed in advance, it is applied cold). "P. F. M." makes this step sound much more complicated than necessary.
4. Apply thin coat of shellac after 12 hours.
5. Sand if necessary with No. 00 or finer paper.

We have even combined close-grained woods such as bass, fir, maple, yellow poplar, and short-leaf pine in the same article, obtaining a clear, even color that minimized variations in grain. Boys who choose water stain for projects invariably feel that the superior finish more than justifies the extra labor.

One point that "Practical Finishing Methods" fails to make is that the wood must be sanded to a smooth, level surface *before* sponging. Also if the wood is sanded more than absolutely necessary after sponging the "raised" grain is not only removed, but the prepared surface is also cut away, exposing new "grain," which will "raise" as soon as the stain is applied. It may have been failure to observe one of these points that caused the original difficulty.

The first coat of shellac may be a half-and-half mixture of 4-lb. cut shellac and alcohol. It dries rapidly, gives more protection to the stain than a "wash" coat, and starts building up the finish in the same operation. The corn product shellac substitute which was available during the war seems to dry to a harder, "crisper" finish in less time than genuine shellac.

It might be pointed out that two gallons of water stain may be prepared at lower cost than one quart of ready mixed oil stain.

J. C. K.

Workshop For a Ten-Year-Old

South Gate, California—I have a son who is ten years old. I would like to start a small workshop for him as soon as that is possible. I would like to know what would be the right tools to get to start such a workshop for a boy of that age?

Mrs. C. C. D.

It may be a good idea to acquaint this youngster with some of our publications like "How to Plan a Home Workshop," "Toys," etc., before getting any machines to see if he would like to work with tools.

Veneers

So. Arlington, Virginia—I am very much interested in your veneer kits. I would appreciate it very much if you could give me more information on the kits. First, the length and width of the pieces and also the exact thickness. Could I buy just one type of wood? I am especially interested in mahogany. Do you sell any special glue for veneering?

V. D. F.

The sizes vary a little; as a rule the pieces are from six to twelve inches wide and approximately thirty inches long. The thickness is 1/28 inches. All veneer stock is sold in assorted kits only. For any particular type of veneer we suggest you order direct from H. L. Wild, 510 E. 11th Street, New York City, or Albert Constantine & Son, Inc., 797 E. 135th St., also New York City.

Jewelry Findings

East Ellsworth, Wisconsin—Would you be so kind and tell me where I can buy the one-piece pin mountings with drive screws and also the two-piece pins with threaded shanks shown in your Jewelry Plan Sheet No. 129.

My husband got some rare woods when he was in the South Pacific Islands, and wants to use the back pins for the wooden and plastic jewelry he makes. I would appreciate it very much if you could send me the name of some firm who can supply the back pins and other items in connection with making the above-mentioned items.

Mrs. D. H. K.

The Jackson Studio at 5440 North Shoreland Ave., Milwaukee 11, Wisconsin, has a complete supply of pin backs, earring clips, chains, jewelry cement, and a number of other items too numerous to mention for the jewelry craftsman.

Cutting Out Letters

Ft. Scott, Kansas—I wish to cut out a number of names on the scroll saw so the letters will appear to be script. Since I have difficulty laying out the letters for the names, I was wondering if you had any information as to where I might obtain prints of such letters to be traced and then connected together. Or you might tell me where I might obtain a good book of instructions covering the laying out of letters of this type.

D. E. G.

Two very good books on the subject of lettering which you can get from your local library or book store at "Sixty Alphabets" by Ben Hunt and Ed C. Hunt, and "Modern Lettering and Design" by A. E. Tripp.

Instructions On Making Fences

Centralia, Illinois—I would like very much to have a book of instructions on the making of fences. This should be a book on all the hows and whys, such as the depth of the post holes, how to best line and plumb them, what kind of wood is best suited for posts and 2x4's, etc. In other words, just how is the best and correct way to build a good fence from start to finish?

Any information you can give me on the above subject will be greatly appreciated.

F. C. R.

We regret that at the present time we do not have any book which covers the subject as thoroughly as F. C. R. would like it. It may be possible that some time in the future we will have an article on fences in the Deltagram. The only source of information at the present time would be Popular Mechanics Magazine, 200 E. Ontario Street, Chicago, Illinois.

Threading Wooden Dowel Pins

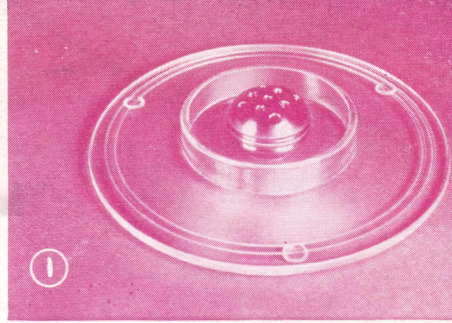
Lubbock, Texas—We would like some information on making threads on wooden dowels, and also tapping holes in hard wood blocks.

The other question we have in mind is the best method for steaming and bending wood.

J. W.

Taps and dies (or screw boxes as they are rolled) have been imported from Europe. There is a firm in the United States that still stock some of these: Vennegut Hardware Co., Indianapolis, Indiana.

Our book "Toys, Games, Playground Equipment" has a little article on steaming of wood in connection with the making of a toboggan.



Here is the matching piece in brass and plastic for the candle sticks shown in the last issue.

Dining Table Centerpiece

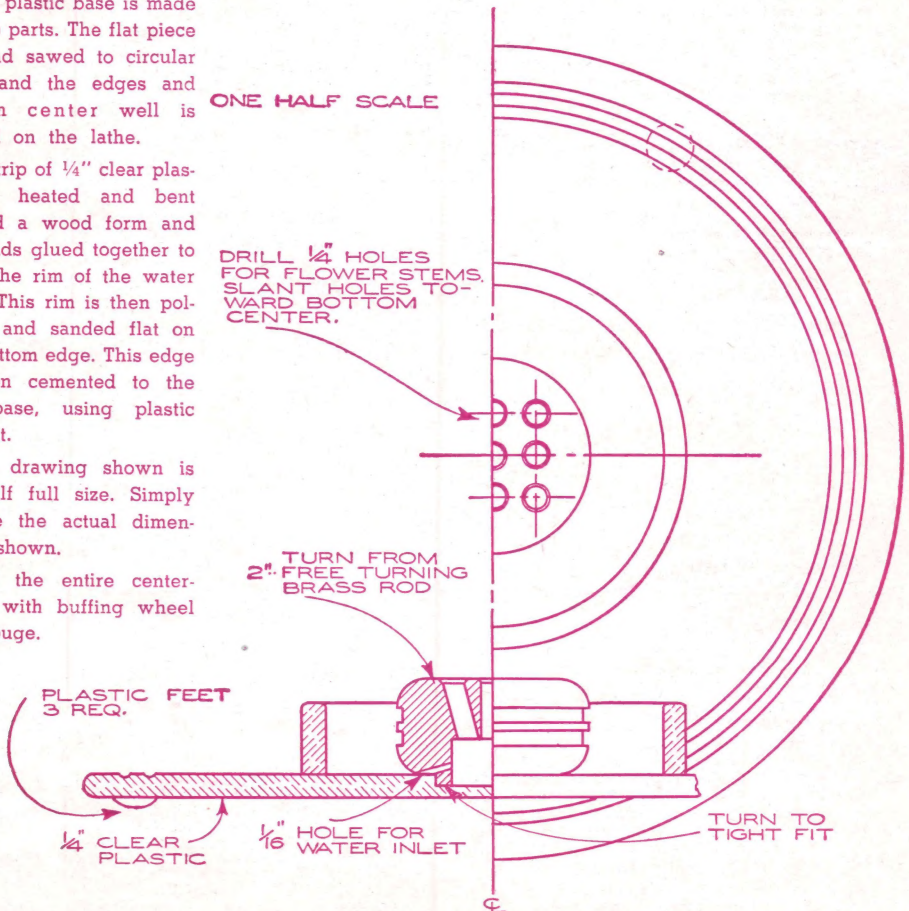
The brass is turned in the same manner as the candle cups, with the carbide tipped turning chisels on your wood working lathe.

The plastic base is made in two parts. The flat piece is band sawed to circular form and the edges and sunken center well is turned on the lathe.

A strip of $\frac{1}{4}$ " clear plastic is heated and bent around a wood form and the ends glued together to form the rim of the water well. This rim is then polished and sanded flat on the bottom edge. This edge is then cemented to the flat base, using plastic cement.

The drawing shown is one-half full size. Simply double the actual dimensions shown.

Buff the entire centerpiece with buffing wheel and rouge.





NEW! ALL-PURPOSE CARBIDE TIPPED TURNING CHISELS



Diamond lapped ready for use. Two tools do the work of eight. Comes in two styles, Square Nose and Round Nose—two sizes $\frac{1}{8}$ " for small, fine work and $\frac{1}{4}$ " for larger, heavy work. Cuts free hand on all materials such as plexiglas, lucite, bakelite, fiber, wood, brass, bronze, aluminum, magnesium, copper, nickel, silver, etc.—all on regular wood turning lathe at wood turning speeds.

You can turn metals and plastics free hand as easily as wood. You need no heavy compound

tool rests or bulky expensive equipment. Chisels have extremely long cutting life. Require little or no sharpening.

No. 46-801— $\frac{1}{8}$ " Square Nose Carbide Tipped	\$4.65
No. 46-802— $\frac{1}{8}$ " Round Nose Carbide Tipped	\$4.65
No. 46-803— $\frac{1}{4}$ " Square Nose Carbide Tipped	\$4.65
No. 46-804— $\frac{1}{4}$ " Round Nose Carbide Tipped	\$4.65

• This new chisel will find many uses in the workshop of the home crafter, model-maker, pattern-maker, machinist, cabinet-maker, and carpenter. These chisels are immediately available to you. Send for your set today or see your nearest dealer.

PRACTICAL PROJECTS BOOK No. 12

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Printed in the U. S. of A.